

## Incident Response Procedures for Laboratories Handling Select Agents and Toxins

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**INTRODUCTION:** The Massachusetts Department of Public Health, State Laboratory Institute (SLI) provides comprehensive public health laboratory testing services for the identification of agents of bioterrorism. The SLI is a Select Agent-registered laboratory that serves as an early warning surveillance center for bioterrorism and is an essential tool in providing early identification of agents and accurate reporting to local, regional and national agencies during public health emergencies and bioterrorist events. All Select Agent Program registered entities must develop and implement incident response plans in accordance with 42 CFR 73.

**SCOPE:** This SOP documents practical response procedures for other emergency situations as they relate to select agents, addressing health and safety in the event of fire, explosion, spill, leak or other accidental release involving hazardous materials. The documents will serve as a source of information to assist employees and supervisors in carrying out their responsibility in ensuring a secure and safe environment at the SLI for visitors, contractors, and employees.

### RESPONSIBILITY/PERSONNEL ROLES:

It is the responsibility of facility administrators, administrative staff, senior management, principal investigators, all supervisory staff, all laboratory workers including biological and scientific staff, human resource officials,

information technology (IT) staff, engineering and engineering support staff, maintenance staff, facility security officials, facility safety officers both MDPH/SLI and UMMS to implement this SOP for enhanced security regarding select agents. A coordinated collaborative approach by both entities is critical and essential to ensuring that these security recommendations provide a reasonable and adequate assurance of laboratory security without unduly impacting the scientific work performed by employees.

**The Director of the SLI:** is responsible for assuring that a system exists which reduces risks and assures the physical security of the laboratory facility, employees, information systems, and select agents and toxins by:

- Adopting, supporting and implementing laboratory-wide policies consistent with all relevant state and federal laws, regulations, and guidelines
- Reviewing, updating and approving policies and procedures after any incident or change in regulations, or at least annually
- Working with law enforcement and emergency response organizations to assure adequate preservation and protection of samples and information to meet legal and professional standards
- Assuring that a laboratory event reporting system exists for incidents, errors, and breaches that occur
- Appointing and supporting a Responsible Official to assure compliance with Title 42, CFR, Part 73

**Responsible Official (RO):**

- Responsible for ensuring that the requirements of 42 CFR 73 are met on behalf of the SLI, the registered facility and for ensuring compliance of the following activities including, developing and implementing safety, security and emergency response plans in accordance with 73.10 through 73.12;
- Ensures that only approved individuals have access to select agents and toxins in accordance with 73.8 and 73.11;
- Ensures appropriate training for safety, security and emergency response in accordance with 73.14;
- Provides timely notice of any theft, loss, or release of a select agent or toxin in accordance with 73.13;
- Reports the identification of a select agent or toxin resulting from diagnosis, verification or proficiency testing in accordance with 73.6.
- Responsible for ensuring that the plan is reviewed annually (and as needed after any drill, exercise, or incident) and revised as necessary.
- Responsible for ensuring that drills or exercises are conducted at least annually to test and evaluate the effectiveness of the plan.

**Alternate Responsible Officials (ARO):**

- Acts on behalf of the Responsible Official as needed in carrying out the RO responsibilities listed above, including covering when the RO is absent.

**Security Personnel:**

- Maintains photo ID/pass card system for employee facility access control.
- Maintains security of and controls access to the overall facility, including the main entrance and reception area at the front of the building and the entrance to and from the loading dock area.
- Enforces security policies.
- Report any breaches in security to Security Supervisor or designee for further instruction.

**Laboratory Security System Managers:**

- Maintain photo ID/pass card system and fingerprint system for laboratory access control.
- Print out reports and inform the RO of violations to the select agent laboratories.
- Immediately report any breaches to security and the facility RO.

**Principal Investigator (PI), and/or Select Agent Laboratory Supervisor (SALS):** are responsible for select agent accountability, receiving, and transfer and must:

- Ensure that all employees are trained, sign off on, and follow all SOPs developed for working with select agents and toxins including their use, safety, storage, transfer, reporting of theft, loss or release, destruction, packaging and shipping and inventory control management.
- Oversee the accounting system for select agents to ensure adequate control and up-to-date inventory of stock cultures, toxins, and agents in long-term storage;
- Maintain data regarding the agent's location, use, storage method, inventory, external transfers, further distribution, and destruction;
- Adopt procedures that maintain accurate and up-to-date records of authorization for entry into limited access areas where select agents are held;
- Follow protocols for intrafacility transfer of select agents (within SLI)
- Follow procedures for transferring select agents, or specimens which may contain select agents to and from the SLI;
- Follow established protocols in compliance with federal and international regulations for packaging, labeling and transporting select agents and toxins;
- Ensure that required permits [e.g., USPHS, USDA, USDOT, US Dept of Commerce or International Air Transport Association (IATA)] are obtained before transporting select agents;
- Ensure materials are decontaminated before they leave the laboratory area;
- Ensure laboratory security is not compromised;
- Report any suspicious activity to the Director of the SLI and the RO.

**All SLI Employees** are responsible for:

- Following all security and safety procedures adopted by the facility including facility access, laboratory access and laboratory safety.
- Following laboratory protocols, policies, and procedures related to working with select agents and other pathogens and toxins, and confidentiality and security of laboratory information systems.
- Prompt reporting to the appropriate Section Manager, or the Laboratory Director, Director of the SLI and RO of any significant safety or security incident or problems, events, theft, loss or release of any select agent or toxin, any suspicious activity or breach of security; and
- Maintaining confidentiality both inside and outside the workplace regarding protected or sensitive information involving patients, events, security procedures or laboratory operations.

**The MDPH Office of Information Technology (IT) Services** is responsible for:

- Adopting and implementing policies and procedures which assure the security of SLI Bioterrorism Information System, Select Agent Inventory, Security Access, RO Databases and other laboratory information stored, transferred, or accessed electronically;
- Maintaining the physical integrity and security of servers, workstations and other IS devices.

**The UMMS Office of Health and Safety:**

- Responsible for training of all UMMS and DPH employees in the overall facility Emergency Response and the Contingency Plan and the Spill Prevention and Countermeasure Plan.
- Provides technical expertise in developing appropriate health and safety related procedures and participates in drills to exercise plan.

**The UMMS Maintenance Manager:**

- Responsible for overseeing security measures and providing emergency response training to UMMS Security Personnel.
- Ensure that UMMS Security Personnel participate in emergency response and incident reporting drills.

**4. RELATED DOCUMENTS:**

01OH004

Exposure Control Plan And Universal Precautions: Blood

	Borne Pathogens And BL2 Agents
10FC002	Biohazardous Waste Disposal
01OH002	Biohazard Disinfection
10OH001	Biological Hazard Post Exposure Plan
10OH003	Biocontainment Operations Manual: BL3 Agents
SA.001	Security Control System for Laboratories Containing Select Agents
SA.002	Select Agent Inventory Management
SA.003	Procedure for the Registration, Amendment to Registration, Transfer, Theft, Loss, Release and Destruction of Select Agents and Toxins
SA.004	Health and Safety Surveillance Guidelines for Select Agents
UMMS	Emergency Response and Contingency Plan
UMMS	Spill Prevention Control and Countermeasure Plan

## 5. REFERENCES:

Public Health Security and Bioterrorism Preparedness and Response Act of 2002, Public Law 107-188.  
Department of Health and Human Services, (CDC), 42 Part 73, Possession, Use, and Transfer of Select Agents and Toxins; Interim Final Rule 12/13/02  
Occupational Safety and Health Administration, (OSHA) 29 CFR Part 1910.1030 Bloodborne Pathogens  
US Department of Health and Human Services/CDC and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories, 5<sup>th</sup> ed. Washington, D.C.; U. S. Department of Health and Human Services, Public Health Service, CDC and NIH, 2007  
Occupational Safety and Health Administration, (OSHA) 29 CFR Part 1910.1450, Occupational Exposure to Hazardous Chemicals in Laboratories  
Occupational Safety and Health Administration, (OSHA) 29 CFR Part 1910.1200, Hazard Communication  
NIH Guidelines for Research Involving Recombinant DNA Molecules (NIH Guidelines), April 2002.  
The NIH Guidelines are available at <http://www.cdc.gov/od/sap>  
CDC Health and Safety Manuals, Centers for Disease Control and Prevention, 2001,  
OhASIS HOME/ Biosafety Information  
Laboratory Security And Emergency Response Guidance For Laboratories Working With Select Agents; Centers for Disease Control and Prevention.12/6/02. MMWR 51:RR-19, 1-6.

## 6. DEFINITIONS:

<b>Contaminated</b>	The presence of blood, infectious materials, potentially infected materials, toxins, on an item or surface.
<b>Decontaminated</b>	A process that consists of cleaning combined with disinfection or sterilization.
<b>Loss</b>	A failure to account for select agent or toxin.

**Occupational exposure**

Any event which results in any person in a registered entity facility or lab not being appropriately protected in the presence of an agent or toxin. This may include reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potential infectious materials that may result from the performance of a person's duties. For example, a sharps injury from a needle being used in select agent or toxin work would be considered an occupational exposure.

**Primary containment barriers**

Specialized items designed or engineered for the capture or containment of hazardous biological agents. Examples include biological safety cabinets, trunnion centrifuge cups, and aerosol-containing blenders. For the purposes of assessing a potential select agent release, the laboratory room may be considered a primary containment barrier in facilities meeting the requirements of biosafety level-4 (BSL-4) or BSL-3Ag as described in the 5th edition of the Centers for Disease Control and Prevention/National Institutes of Health (CDC/NIH) Biosafety in Microbiological or Biomedical Laboratories manual.

**Release**

A discharge of a select agent or toxin outside the primary containment barrier due to a failure in the containment system, an accidental spill, occupational exposure, or a theft. Any incident that results in the activation of a post exposure medical surveillance/prophylaxis protocol should be reported as a release.

**Theft**

Unauthorized removal of select agent or toxin.

**7. SAFETY:**

- See Health and Safety Surveillance Guidelines for Select Agents, SOP SA.004
- See BMBL, CDC and NIH, 5<sup>th</sup> Edition, 2007
- See SOPs for individual laboratory procedures specific to select agents or toxins
- See MSDS specific to Infectious Disease
- See CDC Health and Safety Manuals, Centers for Disease Control and Prevention, 2001, OhASIS HOME/ Biosafety Information

**8. PROCEDURES**

According to 42 CFR 73, Select Agent –registered laboratories must develop and implement a written incident response plan. The incident response plan must be coordinated with any entity-wide plans, kept in the workplace, and available to employees for review. The incident response plan must fully describe the entity's response procedures for the theft, loss, or release of a select agent or toxin; inventory discrepancies; security breaches (including information systems); severe weather and other natural disasters; workplace violence; bomb threats and suspicious packages; and emergencies such as fire, gas leak, explosion, power outage, etc.

The response procedures must account for hazards associated with the select agent or toxin and appropriate actions to contain such agent or toxin. (c) The incident response plan must also contain the following information:

- (1) The name and contact information (e.g., home and work) for the individual or entity (e.g., responsible official, alternate responsible official(s), biosafety officer, etc.);
- (2) The name and contact information for the

building owner and/or manager, where applicable; (3) The name and contact information for tenant offices, where applicable; (4) The name and contact information for the physical security official for the building, where applicable; (5) Personnel roles and lines of authority and communication; (6) Planning and coordination with local emergency responders; (7) Procedures to be followed by employees performing rescue or medical duties; (8) Emergency medical treatment and first aid; (9) A list of personal protective and emergency equipment, and their locations; (10) Site security and control; (11) Procedures for emergency evacuation, including type of evacuation, exit route assignments, safe distances, and places of refuge; and (12) Decontamination procedures.

**A. Theft or loss of a select agent or toxin, or inventory discrepancy involving a select agent or toxin**

- If a responsible official (RO) has a reasonable suspicion that a theft, loss, or release has occurred, the RO should notify CDC immediately to make CDC aware of a potential incident. Information should be submitted as it becomes known, but no later than 24 hours.
- For the theft or loss of a select agent or toxin, notify the appropriate Federal, State, or local law enforcement agencies. Individuals or entities must report thefts or losses even if the select agent or toxin is subsequently recovered and/or the responsible parties are identified.
- The initial report should include as much information as possible about the incident. As required by the regulations, the entity must report the following: (1) type of incident, (2) date and time, (3) agent and quantity, and (4) summary of events that include the location of the incident and list of other agencies notified.
- The PI must perform a complete inventory no later than 5 hours after the discovery.
- Within seven (7) days, the entity must submit a complete APHIS/CDC Form 3, Report of Theft, Loss or Release to the lead Agency or to either APHIS or CDC if the entity is not registered with either agency. All appropriate data fields should be completed. Supporting documentation, such as access logs, standard operating procedures, and the follow up investigation, should be provided regarding the reported incident. The form and supporting documentation may be submitted by either fax or mail.

**B. Release of a select agent or toxin**

- Employees working with select agents or toxins must report any accidents, spills, exposures, or suspicious activity to the select agent laboratory supervisor at once.
- Upon discovery of a release of a select agent the Select Agent Laboratory Supervisor and/or the Select Agent Principal Investigator must immediately notify the RO and the laboratory PI, providing the following information when possible:
  - The name of the select agent or toxin.
  - Any identifying information (e.g. strain or other characterization information).
  - An estimate of the quantity released.
  - The start time and duration of the release.
  - The specific location or environment (room number, lab name or area, inside or outside the registered area, drain in a waste system etc.) where the release occurred.
  - The number of individuals potentially exposed.
  - Any actions taken to respond to the release.
  - Any hazards posed by the release
  - Any other information that may be helpful to the Director, RO, CDC, law enforcement or health and safety.
- The RO should notify CDC immediately to make CDC aware of a potential incident. The RO must submit a follow-up report in writing to CDC within 7 calendar days of the release using APHIS/CDC Form 3; Guidance Document For Report of Theft, Loss, or Release of Select Biological Agents and Toxins.
- If an employee has potentially been exposed, he/she should notify the supervisor, the SAT lab PI, and the bureau director, and seek first aid or medical advice, and complete an industrial accident form.
- The incident must be thoroughly investigated and controls must be put into place to prevent any future repeated exposures.
- **Disinfection/spill response:**
  - Notify other employees that spill or release has occurred.

- Only qualified individuals who have been properly trained on the mitigation of infectious spills are allowed to clean a spill.
- Allow aerosols to settle for at least one half hour (30 minutes).
- Wearing protective clothing, tie-back gown, double gloves, face shield and waterproof booties gently cover the spill with paper towels or surround the spill with absorbent socks and apply suitable disinfectant. Pour 10% bleach solution (1:10 dilution bleach in water) or full strength bleach solution (if a 10% solution is unavailable) onto spill starting at the perimeter and working towards the center.
- Spills involving cultures or environmental samples known to have concentrations of anthrax spores or are suspected to have concentrations of anthrax spores should follow the procedure described in section E "Administrative Controls" under "Biohazard Disinfection".
- Allow sufficient contact time before clean up, at least 20 minutes or longer.
- Absorb the spill with gel pads; dispose as biohazardous waste.
- Wipe down the area with bleach solution, rinse the area with 70% ethanol, and allow it to air dry.
- Assure that all cleanup materials are discarded as biohazardous waste and autoclaved.
- Record the exact details of the spill in writing: what was spilled, how much, the date and time, any special conditions, equipment involved, personnel involved or exposed.
- Provide this information to the RO, Director of the SLI, PI, SALS and the Safety Department.
- Document the spill or release and give a copy to the RO and place a copy in the laboratory problem log book.
- The document will be reviewed, recommendations will be made and follow-up actions will be implemented to prevent further incidents. The document will also serve as a record of the incident in the event that medical symptoms arise.
- **Procedure for laboratory decontamination**
  - In the event of widespread contamination of the laboratory space, laboratory decontamination may be necessary as follows.
  - Building personnel will be notified of impending decontamination by the UMMS EH&S office.
  - If the laboratory requires decontamination, B&V Testing will be notified.
  - The laboratory will be cleared of all unessential personnel.
  - All biohazardous material will be autoclaved out of the facility or sealed and placed in a locked refrigerator, freezer or locked incubators.
  - The laboratory will be prepared and decontaminated by B&V Testing. All doors, pass throughs, and room diffusers (as applicable) will be sealed. HVAC will be turned off and biological indicators (BI's) will be placed inside the laboratory.
  - Vaporized Hydrogen Peroxide (VHP) or an acceptable alternative will be introduced into the laboratory space for the period required to obtain sufficient concentration.
  - Concentrations will be measured within the space and within the safety perimeter surrounding the laboratory space during the procedure.
  - The HVAC system will be re-engaged when the completion of the decontamination treatment is complete. Concentrations will be measured within the space.
  - Laboratory personnel will be allowed to re-enter the space when the decontamination concentration is at or below 1ppm.
  - The biological indicators will be collected and sent to an independent FDA registered laboratory for analysis.
  - The complete decontamination results, including BI results, will be forwarded upon completion.

### C. Security breaches (including information systems)

1. **Security breaches:** After hours and during working hours, Security will inspect the exterior doors and windows for signs of forced entry and must contact the UMASS Facility Manager and the SLI Director and report any breach in security. In the event that a forced entry has occurred, the SLI Director will contact the State Police and/or the FBI as appropriate. During this time building access will be limited. The SLI Director will notify the ROs and PIs as appropriate. After the police have determined that no intruders are present, the UMMS Facilities Manager will inspect the laboratory area for signs of forced

entry to select agent labs. The PIs must conduct an inventory of select agents and toxins. If evidence of such a theft exists, the PI must notify the RO and the SLI Director (see 8A and 8B above).

2. **IT security breaches:** To report information system security emergencies or cybercrimes including any breaches or tampering with the information technology systems or the network, contact the SLI Director and the SLI Director of Quality Assurance and Informatics.
3. **Response to unauthorized or suspicious persons or activities**
  - Contact Security using the Emergency Number **5911**. After hours or weekends, contact Security at Zero (0) or 5911.
  - Give a description of the individual along with the exact location of the person, room number, floor, wing, etc
  - Security will notify the UMMS Supervisor of Facility Security and/or the UMMS Maintenance Manager, and if needed, the State Police for backup or support.
  - If a select agent area is involved, notify the RO and laboratory PI.
  - Depending on the activity involved it may be necessary for the RO to contact the FBI.
  - If a select agent area is involved, the UMMS Supervisor of Facility Security must fill out an incident report and give a copy to the RO.

**D. Severe weather and other natural disasters (floods, storms, hurricanes, tornadoes)**

1. **Select Agent Labs**
  - All registered laboratories must be manually locked down when a huge storm or adverse weather is anticipated or after the fact if power goes out for any reason. Even though there are backup generators, one must consider the case of a direct hit from a powerful weather event such as a hurricane when the power could be out for an extended period of time.
  - Notify the RO if there is any damage or impact on select agent inventory or security.
  - Notify the RO and the appropriate PI if relocation of the select agent(s) is required.
2. **Facilities Management**
  - Shut off gas and electrical power if necessary.
  - Monitor water seepage into the basement and plug leaks.
  - Pump water out of the basement. Obtain additional pumps if needed.
  - Monitor storm drains for back up. Plug lines in manholes if necessary.
  - Unbolt and leave the tops on manholes.
  - Anchor, brace, or relocate equipment that could float.
  - Begin sandbagging if needed.
  - Assist in rescue efforts.
  - Monitor radio and television broadcasts for progress reports.
3. **EH&S**
  - Act as a resource on issues of safety involving, environmental, chemical, fire, and biological hazards
  - Survey areas of hazardous materials and operations and direct activities for safely securing such material
  - Assist in rescue efforts
  - Assume control of command center
4. **Employees**
  - Assist in securing and protecting instruments and materials
  - Await notification for evacuation

**E. Workplace violence:** The Commonwealth of Massachusetts adheres to a workplace violence policy administered by the Human Resources division.

1. **Employees should:**
  - Secure their own workplace.
  - Question and/or report strangers to supervisors.
  - Be aware of any threats, physical or verbal, and/or any disruptive behavior of any individual and report such to supervisors.



- Not confront individuals who are a threat.
  - Be familiar with the resources of the Employee Assistance Program.
  - Take all threats seriously.
  - Report incidents to supervisors and security.
2. Managers & Supervisors should:
    - Inform employees of workplace violence policies and procedures.
    - Ensure that employees know specific procedures for dealing with workplace threats and emergencies, and how to contact police, fire, and other safety and security officials.
    - Respond to potential threats and escalating situations by utilizing proper resources from the following: local law enforcement and, human resources staff, and the Employee Assistance Program.
    - Take all threats seriously.
    - **Report emergencies immediately to X5911**
  3. Individuals engaged in violent behavior in the workplace must be reported to Security and be removed from the premises.
  4. For workplace violence involving select agents:
    - Violent individuals who have access to registered laboratories and/or agents will have their approval to work with select agents and/or access to registered areas suspended by the RO pending an investigation.
    - The RO will make the decision as to whether or not the individual will have their authorization to work with or access select agents re-instated.

#### **F. Bomb threats and suspicious packages**

1. *If the bomb threat is received in a letter by mail:*
  - Handle the letter or envelope containing the threat as little as possible to avoid compromising fingerprints. Preserve any items as evidence.
  - Treat the scene as a crime scene. Preserve evidence for law enforcement for forensic examination of criminal evidence and fingerprinting (regardless of whether the threat is determined to be accompanied by a hazardous material).
  - Notify Security at 5911. Security then will notify:
    - The Property Manager, the Maintenance Manager or the Supervisor of Facility Security.
    - The State Police as instructed by one of the above persons. The State Police will report the incident to the State Bomb Squad.
    - The Bioterrorism Response Laboratory.
  - The BT Director will contact the Postal Inspector if it appears that the threat was delivered through the U.S. Postal Service, and will contact other appropriate law enforcement (local FBI WMD coordinator) as warranted.
  - Any sample (evidence) collection must be coordinated with law enforcement (FBI).
  - Transfer custody of evidence to law enforcement as soon as possible. Maintain chain of custody by obtaining a record of names and signatures every time the custody of the item changes hands.
2. *If the bomb threat is received over the phone:*
  - Keep calm and keep talking to the caller. Do not hang up.
  - If possible, signal a co-worker to call Security at 5911. Security will call:
    - The State Police to report a bomb threat call in progress. The State Police will contact the Bomb Squad to perform a search as warranted. The State Police Bomb Squad will determine if the building is to be evacuated.
    - The Property Manager, the Maintenance Manager or the Supervisor of Facility Security.
  - Fill out the Employee Bomb Threat Checklist in Attachment 2 (Emergency Response Guidelines, UMMS JP) while talking to the caller.
  - Ask the caller to repeat the message and write it down. Repeatedly ask questions. Ask where the bomb is and when it is to go off. Ask for the person's name, exact location and phone number.

- Listen for background noises. Note gender, pitch of voice or any accent.
  - After the caller hangs up, sign and date the Employee Bomb Threat Checklist, copy, and bring it to Security immediately so that the information can be passed onto the State Police.
  - All employees must follow the building evacuation procedures.
3. *If the bomb threat is received face to face:*
- Ask the person where the bomb is, if they placed it, what it looks like, where it is, and why they would do it.
  - If possible signal a co-worker to report the individual and the incident immediately by calling Security at 5911.
  - If the person is not familiar to you, make a mental note of his/her physical characteristics.
  - Notify Security of any details of the conversation or description of the individual. Security will notify:
    - The Property Manager, the Maintenance Manager or the Supervisor of Facility Security.
    - The State Police.
  - Security or the State Police will remove the employee from the area and hold them for questioning.
  - If not a hoax, Security will call State Bomb Squad and immediately evacuate the building.
  - The Bomb Squad will assess the situation on site and notify other agencies as appropriate.
4. *Suspicious packages*
- Characteristics of suspicious packages include:
    - Packages, containers or letters with misspelled words, badly typed or written
    - Packages resealed or tampered with
    - Incorrect title or addressed to a persons' title only
    - Badly taped or completely sealed with tape
    - Noises emanating from package
    - Lopsided or uneven packages
    - Rigid or bulky packages or envelopes
    - Oily stains, discolorations or crystallization on the outside wrapper
    - Excessive tape or string around the package
    - Protruding wires from the package
    - Strange odor
    - No return address on envelope or package
    - Restrictive markings such as "PERSONAL" marked on envelope or package
    - Powder or other suspicious substance on the outside of envelope or package
    - Excessive postage on envelope or package
    - Possibly mailed from a foreign country
    - Location of package. Would one expect to find a package in this location?
  - General guidelines for handling mail or packages suspected of containing a biological, chemical or radiological threat or a bomb threat at the MDPH/SLI Tower Building:
    - Stop. Do not handle or open the item. Do not bump, shake, smell, touch or taste the item.
    - Isolate the item immediately by cordoning off the area.
    - Keep a distance from the package.
    - Wash hands with soap and warm water if biological or chemical threat is suspected.
    - Shield oneself from object if a radiological threat is suspected.
    - Evacuate immediate occupants.
    - Notify Security at 5911. Security will notify:
      - The Property Manager, the Maintenance Manager or the Supervisor of Facility Security.
      - The State Bomb Squad
      - The State Police

- The Bioterrorism Response Laboratory. The BT Director will notify, as warranted, (1) the RO, (2) the Postal Inspector, (3) the local Fire Department/Hazmat Unit, (4) law enforcement
  - The Radiation Control Laboratory, IF a radiological threat is suspected. The Radiation Control Laboratory will notify, as warranted, (1) the Postal Inspector, (2) local Fire Department/Hazmat Unit as appropriate, (3) law enforcement.
  - Security will evacuate other areas as warranted.
  - The Bomb Squad will assess the situation on site and notify other agencies as appropriate.
5. *Letters, packages or containers with an unknown powder-like substance and threatening communication:*
- Contact the Bioterrorism Response Laboratory.
  - A chain-of-custody form must be initiated along with an incident report.
  - The BT Laboratory will triage the specimen and determine if there is a threat.
  - The BT Director should notify the local Federal Bureau of Investigation (FBI) Weapons of Mass Destruction (WMD) Coordinator, a certified HAZMAT unit, local law enforcement, the Postal Inspector if it appears that the threat was delivered through the U.S. Postal Service, and the RO.
  - The appropriate laboratory will perform definitive identification or analysis and communicate results to appropriate authorities.
  - If the situation involves a chemical, contact the Chemical Terrorism Response Laboratory.

**G. Emergencies such as fire, gas leak, explosion, power outage, etc.**

1. *Evacuation procedures:*

- Whenever evacuation procedures (for fire, adverse events, or other incidents) are in effect, employees of registered laboratories must ensure that agents in incubators, freezers and refrigerators are secure and locked whenever possible.
- The fire alarm system will automatically override the LSS system in all laboratories and secure floors except 404, 712, 760, 866, 869. The magnetic doors are powered off to allow immediate exit and entry without using the proximity card. The doors will remain unlocked until the fire alarm has been reset.
- If an authorized user is conducting work using SAT in rooms 404, 712, 760, 866 and 869 when a fire alarm has sounded, the person may leave the SAT in the biosafety cabinet (BSC) to ensure a quick departure from the building. As soon as it is safe to re-enter the building, the employee will immediately return to the laboratory to verify the status of the unattended SAT (i.e. SAT remains as it was placed in the BSC at time of evacuation). The employee who left the SAT unattended will complete the **Unattended Select Agent Incident Log**, Form SA001-04-09 (see Section O, Attachment-3). Any and all discrepancies must be immediately reported to the RO at 6656 and to the SLI Director.
- Immediately notify Security of any suspicious persons or activities.
- Emergency Door Release (EDR) Button. If employee identification access card does not work or an event occurs requiring personnel to promptly exit the LSS restricted area, push the EDR located inside each area. The EDR will allow users to leave the room or hallway without scanning their access identification card. The EDR is located on the interior of each interlock door or hallway and contains a tamper proof cover to prevent accidental activation. All EDR activations will be documented by each employee using the **Emergency Door Release Button Activation Log**, Form SA001-03-09 (see Section O, Attachment-2).

2. *Power Outage*

- If possible, call Facilities Maintenance at X 6545 or Security at 5911.
- If you are in an unlighted area, proceed cautiously to an area that has lighting. Provide assistance to others in your area that may be unfamiliar with the space.
- If instructed to evacuate, proceed cautiously to the nearest exit.
- If working in a biosafety cabinet, immediately close the sash. If the BSC is in room that is usually negatively-pressured, evacuate immediately.

- In the event of a long-term power loss, arrangements should be made to relocate and secure agents and toxins within suitable lock boxes or locked containers containing suitable coolant materials within the manually locked down registered laboratories or if necessary arrangements must be made with the CDC Select Agent Program to transfer the agents and toxins to another approved registered facility until power is restored.

3. *Serious Gas Leak*

- Cease all operations and immediately vacate the area.
- Do not turn on or off any electrical appliances, lights, etc.
- From a distant phone immediately call Facilities Maintenance at X 6545 or Security at 5911.

4. *Plumbing Failure/ Flooding*

- Call Facilities Maintenance at X 6545 or Security at 5911 immediately, tell respondent of the exact location and severity of leak.
- If there are electrical appliances and outlets near the leak, use extreme caution.
- If there is any possible danger, evacuate the area.
- If you know the source of the water and can safely stop it (i.e. unclog the drain, turn off the water, etc.) do so cautiously.
- Be prepared to assist as directed in protecting objects that are in jeopardy. Take only essential steps to avoid or reduce immediate water damage, by covering, removing or elevating them.

5. *Fire*

If a fire is observed, activate the nearest fire alarm pull station, exit the facility and provide details to the Fire Command Coordinators (facilities or safety personnel) stationed at front of the building. When the alarm sounds, evacuate the building immediately using stairs at the nearest exit, according to the UMASS Emergency Response and Contingency Plan.

**H. Planning and coordination with local emergency responders**

On an annual basis, the BT lab director and/or the RO will communicate with FBI, Boston EMS, Boston Fire/HazMat and Boston Police regarding the layout of the BSL2+ and BSL3 labs to familiarize them with current facilities practices and laboratory procedures, and address any concerns and questions that may arise. A site visit to the lab will be arranged as needed.

**I. Medical incident response plan**

- *First aid:*
  - Cuts or other wounds (including non-intact skin) - Squeeze the wound to make it bleed if possible. Wash the wound with soap and water immediately for 15 minutes.
  - Exposure to mucous membranes of eyes, nose, or mouth - Rinse the exposed mucous membranes for 15 minutes.
  - Intact skin exposure- Flush the skin with water for at least 15 minutes, using soap and water wherever possible. Exposure to mucous membranes of eyes, nose, or mouth - Rinse the exposed mucous membranes for 15 minutes.
  - The injured person and/or the supervisor must complete the DPH Human Resources Industrial Accident form and submit to HR within 24 hours of the incident. Seek medical attention as needed as described in Attachment 2 (Emergency Response Guidelines, UMMS JP).
- *If a **medical emergency** occurs in a high-containment the BSL2+ or BSL3 laboratory and ill person is **conscious**, then other employees should:*
  - Call x9-911 for local emergency responders. Response is faster if the call is made from a landline (calls made from landlines go directly to Boston responders, while calls made from cell phones get routed to Boston responders via the State Police). Call x5911 to notify security desk of location of ill person. Enlist assistance from a colleague if possible.
  - Assist the ill person in walking or being carried out of the lab.
  - Assist the ill person with routine PPE doffing procedures and any decontamination steps that are indicated.
  - Seek medical attention as needed as described in Attachment 2 (Emergency Response Guidelines, UMMS JP).

- The injured person and/or the supervisor must complete DPH HR Industrial Accident form and submit to HR within 24 hours of the incident.
- *If a **medical emergency** occurs in a high-containment the BSL2+ or BSL3 laboratory and ill person is **unconscious**, then other employees should:*
  - Call x9-911 for local emergency responders. Call x5911 to notify security desk of location of ill person. Security will escort emergency responders to the location of ill person, holding elevators as needed. Enlist assistance from a colleague if possible.
  - *If the ill person is breathing*, drag the person into the warm room near the cold room door and remove the person's PPE and any contaminated clothing (see Attachment 3). If any areas of skin are suspected to have been contaminated, wash thoroughly with soap and water or use a disinfectant wipe (such as Dispatch®). Once the person is free of contaminants, drag them into the cold room and continue to monitor breathing while awaiting emergency responders.
  - *If the ill person is not breathing and you are not trained in CPR*, await assistance from colleagues/emergency responders. While awaiting assistance, drag the person into the warm room near the cold room door and remove the person's PPE and any contaminated clothing (see Attachment 3). If any areas of skin are suspected to have been contaminated, wash thoroughly with soap and water. Once the person is free of contaminants, drag them into the cold room and continue to monitor breathing while awaiting assistance from colleagues and/or emergency responders.
  - *If the ill person is not breathing and you are trained in CPR*, then assess circulation and begin CPR if needed.
    - Enlist colleagues to:
      - Get the automated electronic defibrillator located in the elevator lobby on all floors.
      - Assess whether the person's PPE, clothing, or skin have been contaminated with infectious material
      - Determine what infectious material may have been released.
      - Contain and disinfect the spill, if needed, and if this can be done without significant interference with the resuscitation.
      - Assist with dragging and decontaminating the person as described below.
    - Drag the person into the warm room near the cold room door when an adequate pulse is restored.
      - Remove the person's PPE and any contaminated clothing. If any areas of skin are suspected to have been contaminated, wash thoroughly with soap and water.
      - Once the person is free of contaminants, drag them into the cold room and continue to monitor while awaiting emergency responders.
    - If the patient remains without pulse in the warm/hot rooms by the time the emergency responders arrive:
      - Lab personnel should communicate to the emergency responders:
        - The status of the patient (no pulse)
        - Whether the patient or patient clothing/PPE is suspected to have been contaminated, and if so, with what agent.
        - Whether the laboratory itself is expected to have been contaminated, and if so, with what agent.
      - The emergency responders should make an effort to don gloves, gowns, and appropriate respirators if time permits.
  - After the ill person has been removed from the laboratory for transport to the hospital:
    - Initiate facility decontamination as needed, including decontamination of the cold room floor.
    - The Laboratory Director, in conjunction with the Bureau of Infectious Disease and/or with consulting Occupational Health/Infectious Disease physicians, will initiate medical surveillance procedures (SOP SA.004) for all involved laboratory personnel and emergency responders, including assessment of exposure and administration of prophylactic antibiotics if indicated.
    - The person's supervisor must complete a DPH HR Industrial Accident form and submit to HR within 24 hours of the incident.

**J. Personal protective and emergency equipment**

**1. 4<sup>th</sup> floor**

- a. PPE: N95 respirators, PAPRs, gowns, gloves, booties are located in cold room of the room 404 BSL3 laboratory suite and in the Emergency Response Cabinets located in the hallway on 4E and 4W (2 cabinets)
- b. Fire extinguishers are located in the hallways of 4E and 4W and in the individual labs, including 404, the Bioterrorism Response Laboratory.
- c. Fire alarm pulls are located at each stairwell exit and in the elevator lobby.
- d. Spill kits are located in the hallway of 4E and 4W and in 404, the Bioterrorism Response Laboratory.
- e. Spill disinfectants and neutralizers are located in the hallway of 4E and 4W.
- f. Biohazard pop-up flag to warn of an area cordoned off; security tape to cordon off the area are located in the Emergency Response Cabinets located in the hallway of 4E and 4W.
- g. AED is located in the 4<sup>th</sup> floor elevator lobby.
- h. Fire blanket is located in the hallway of 4W.
- i. Chemical spill neutralizer is located in the hallway of 4W.

**2. 7<sup>th</sup> floor**

- a. PPE: N95 respirators, PAPRs, gowns, gloves, booties are located in cold room of the room 713 BSL2+ laboratory suite
- b. Fire extinguishers are located in the hallway outside room 712/713 (2 extinguishers), in room 713, and in room 712 A/B.
- c. Fire alarm pulls are located at the stairwell exits and in the elevator lobby.
- d. Spill kits are located in the hallway outside room 712/713, and in room 712.
- e. Spill disinfectants and neutralizers are located in the hallway outside room 712/713.
- f. Biohazard security tape to cordon off the area are located in storage cabinet in the hallway outside room 712/713.
- g. AED is located in the elevator lobby.
- h. Emergency shower is located in room 713C.
- i. First aid box is located in the hallway outside room 712/713.

**3. 8<sup>th</sup> floor**

- a. PPE: N95 respirators, PAPRs, gowns, gloves, booties are located immediately inside room 869. Gowns, gloves, and sleeves are located inside 760 and 866.
- b. Fire extinguishers are located next to the doors to Rm 866 and Rm 759.
- c. Fire alarm pulls are located at the stairwell exits and in the elevator lobby.
- d. Spill kits are located in each laboratory (being purchased now).
- e. Spill disinfectants and neutralizers are located in Rm 869, 866, and 760.
- f. Biohazard pop-up flag to warn of an area cordoned off; security tape to cordon off the area are located (being purchased now).
- g. AED is located in the elevator lobby

**K. Site security and control: see SA.001: Security Control System for Laboratories Containing Select Agents**

**L. Hazards associated with the select agent or toxin and appropriate actions to contain such agent or toxin: see agent-specific biosafety plans for each SAT laboratory.**

**M. Drills and exercises**

- Drills and/or exercises must be conducted at least once a year to test and evaluate the effectiveness of the incident response plan.
- The drills or exercises must be documented and include after action reports for review.
- The RO must have a complete copy of the drill or exercise for review 4 to 6 weeks after the drill.
- The RO must ensure necessary changes are implemented in the plan.

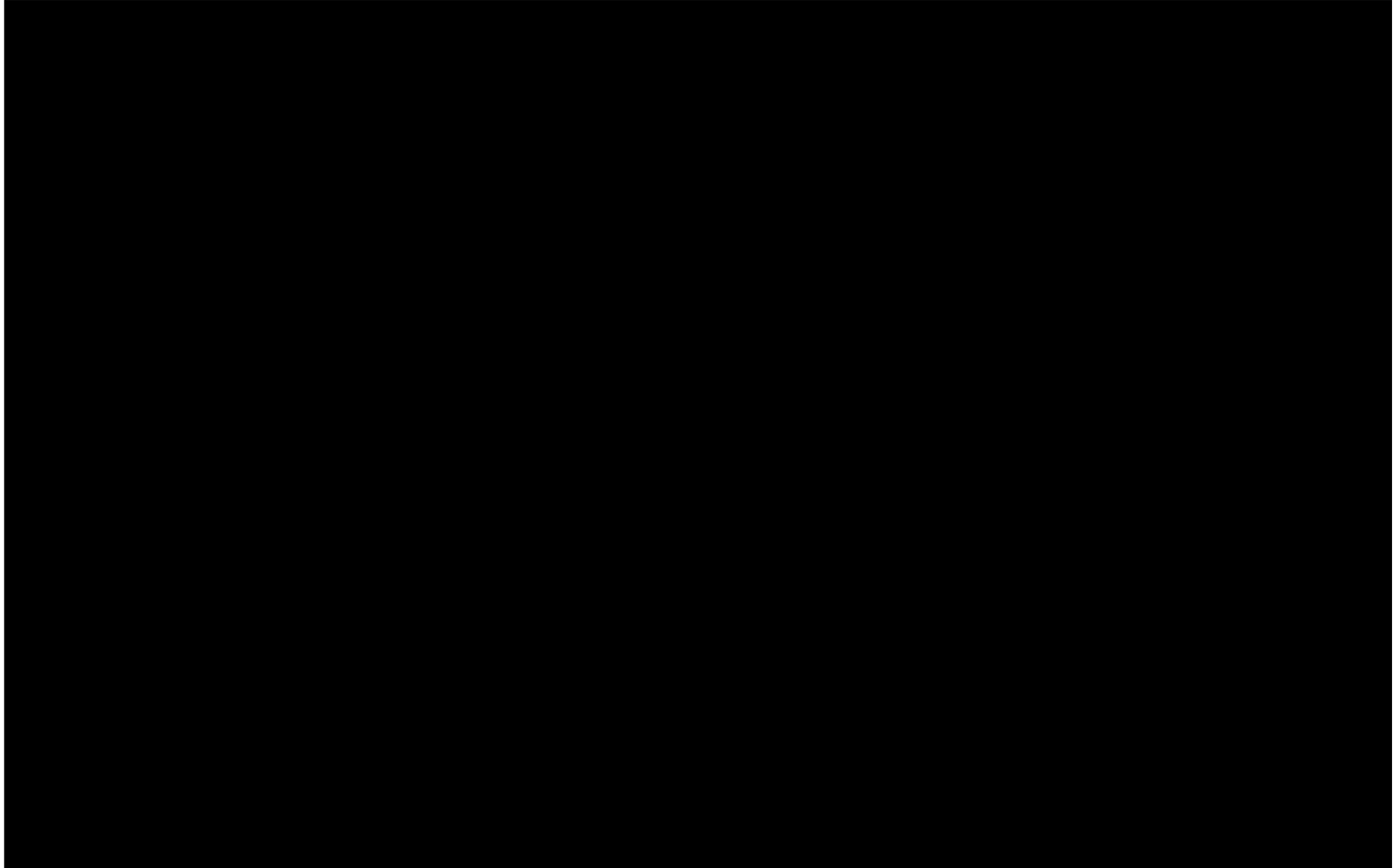
- The plan must be reviewed and revised as necessary after any drill or exercise and after any incident.
- Training must reflect changes in the plan.

ATTACHMENT 1: CONTACTS

**MDPH/William A. Hinton State Laboratory Institute Response Contact List**

FIRST LAST NAME - WORK PHONE (W)- CELL PHONE (C)- HOME (H)-PAGER (P)

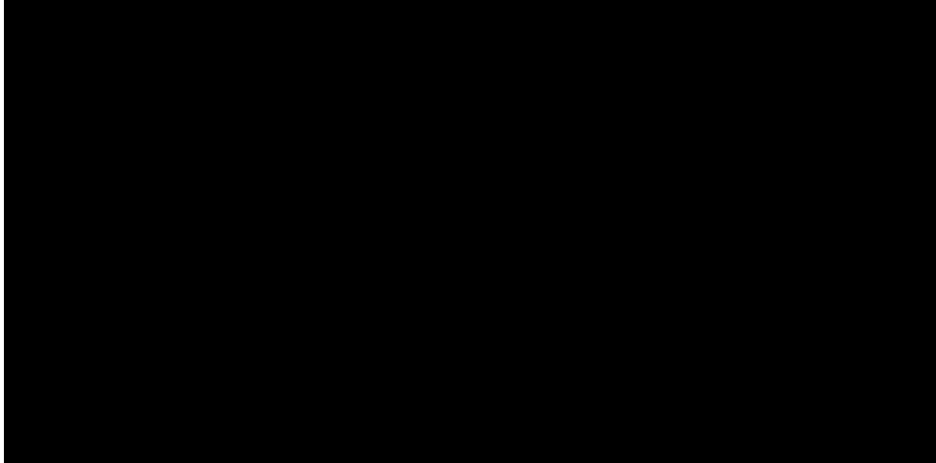
Push To Talk (PTT) POSITION



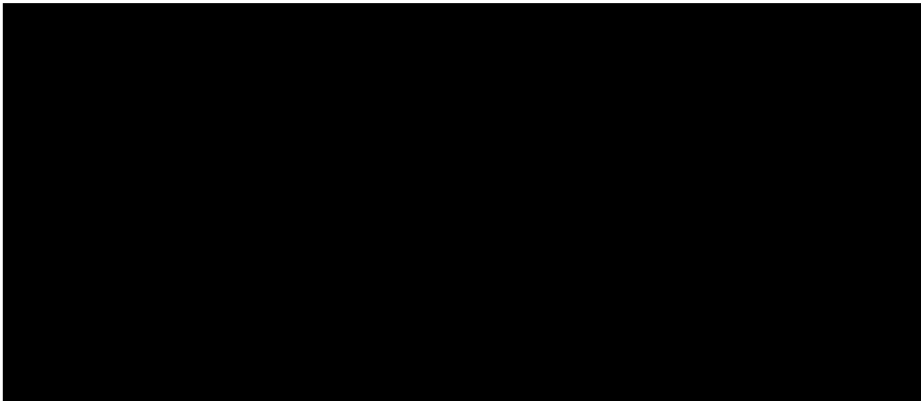


## MA Local, State, and Federal Agency Contact Lists

### LOCAL AGENCY CONTACT LISTS:

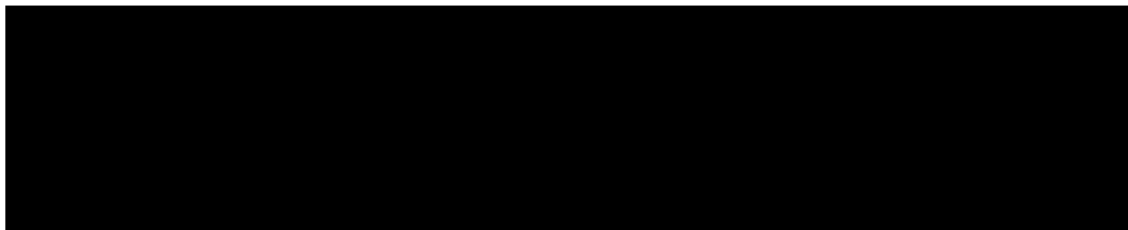


### STATE AGENCY CONTACT LIST:



#### MA Department of Environmental Protection Laboratory (DEP)

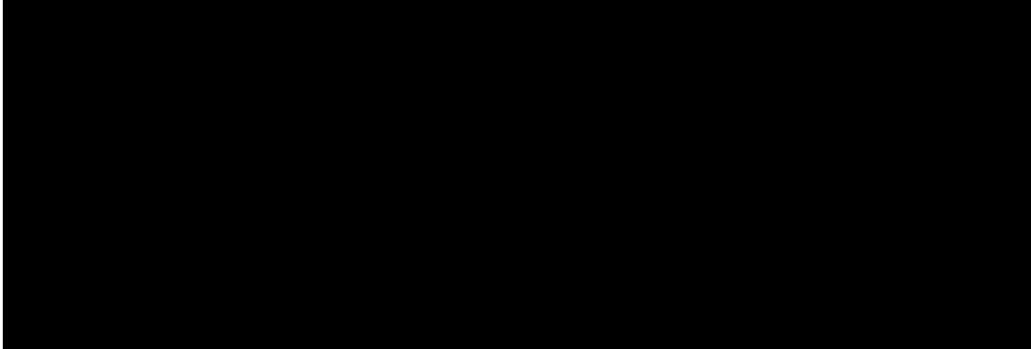
Dina Conti	(617) 712-9015		
Oscar C. Pancorbo	Lab Director		H: (978) 686-3394
Tom McGrath	(978) 975-1138 x318		H: (978) 681-8740
Mike Bebirian	Lab Director- alternate		H: (603) 898-6438
Nelson Gomez	WES Lab Supervisor		H: (978) 745-2669
Lisa Touet	WES Lab Supervisor		H: (978) 664-1531



### FEDERAL AGENCY CONTACT LIST:



Center for Disease Control and Prevention



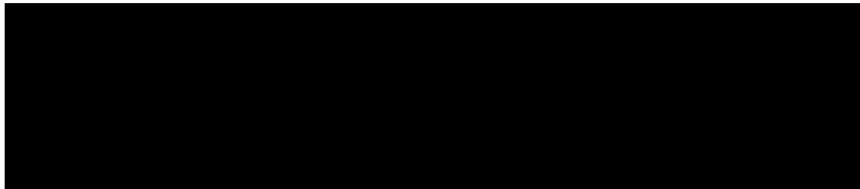
Food and Drug Administration:

Paul Morin	NE FERN Lab Coordinator	
Keroline Simmonds	Food Chem. Branch Director	C: (917) 685-454
Alice Cohen	Food Micro. Branch Director	

Federal Bureau of Investigations (FBI) Boston

Daniel Einhaus	WMD Coordinator	C: (617) 892-2873
Kara Spice	WMD Assistant Coordinator	C: (617) 778-3259
Brad Davis	Supervisory Special Agent	C: (617) 892-2406

Secret Service Main Number: 1-800-424-8802



<b>Contact List For Tenants of the Wm. A Hinton State Laboratory Institute-Tower Building</b>		
<b>Program</b>	<b>Contact Person</b>	<b>Phone Number</b>
<b>University of Massachusetts Medical School:</b>		
The New England Newborn Screening Program	Roger Eaton, M.D.	(617) 983-6317
The Massachusetts Biologic Laboratories	Rick Kotosky	(617) 894-8321 (617) 983-6420
Managing Director of Campus	Jay Mitchell	(617) 983-6219
Facility Department	James Aquilino	(617) 983-6542
Maintenance Department	John Nickerson	(617) 983-6545
Security at Main Entrance to Building	Dial 5-911	
Security Department	Charles Miller	(617) 983-6541
Environmental Health and Safety	Howard Lefkin	(617) 983-6207
<b>Massachusetts Department of Public Health:</b>		
<b>Bureau of Environmental Health:</b>		
Food Protection Program	Kim Foley	(617) 983-6747
Radiation Control Program	Donald Buckley	(617) 983-6879
<b>Bureau for Quality Assurance and Control:</b>		
Drug Control Program	Patty Calvagna-Lusk Grant Carrow	(617) 983-6713 (617) 983-6701
<b>Bureau of Communicable Disease Control:</b>		
Communicable Disease Surveillance Program	Alfred DeMaria, M.D. Gillian Haney (Surveillance) Doreen Corbin (IT)	(617) 983-6550 (617) 983-6863 (617) 983-6808
Epidemiology and Immunization (E&I)	Epidemiologist on Call	(617) 983-6800
Refugee and Immigrant Health Program (RIH)	Jennifer Cochran	(617) 983-6590
Sexually Transmitted Disease Prevention (STD)	Brenda Cole	(617) 983-6841
Tuberculosis Prevention and Control (TBPC)	Sue Etkind	(617) 983-6970
<b>Bureau of Laboratory Sciences:</b>		
<b>Division of Microbiology:</b>	Linda Han, M.D. vacant	(617) 983-4362
Mycobacteriology Laboratory	Paul Elvin	(617) 983-6381
Bacteriology Reference Laboratory	Peter Belanger	(617) 983-6607
Foodborne Disease Surveillance Laboratories	Garry Greer	(617) 983-6608
HIV/Hepatitis/STD Laboratories	Arthur Kazianis	(617) 983-6389
Bioterrorism Response Laboratory	Cheryl Gauthier	(617) 983-6266
<b>Division of Molecular Diagnostics and Virology:</b>		
Virus Isolation Laboratory	Sandra Smole, Ph.D. Raimond Konomi, Ph.D.	(617) 983-6966 (617) 983-6383
Virus Serology Laboratory	Karen Chen	(617) 983-6397
Rabies Laboratory	Xingtai Wang, Ph.D.	(617) 983-6385
Molecular Diagnostics Laboratory	Scott Hennigan	(617) 983-6391
Arbovirus Laboratory /Birds/Mosquitoes	Cynthia Stinson, Ph.D.	(617) 983-4364
Bio-Watch Laboratory	Sandra Smole, Ph.D.	(617) 983-6966

<b>Contact List For Tenants of the Tower Building, Continued</b>		
<b>Program</b>	<b>Contact Person</b>	<b>Phone Number</b>
<b>Massachusetts Department of Public Health:</b>		
<b>Bureau of Laboratory Sciences, Continued:</b>		
<b>Division of Analytical Chemistry:</b>	Julianne Nassif	(617) 983-6651
Drug Analysis Laboratory	Charles Salemi	(617) 983-6622
Childhood Lead Screening Laboratory	Alan Rubin	(617) 983-6665
Environmental Chemistry Laboratory	Jill Clemmer	(617) 983-6657
Chemical Terrorism Response Laboratory	Paul Servizio	(617) 983-6653
<b>Massachusetts Racing Commission Laboratory</b>	Bruce Aspeslagh	(617) 983-6556

**ATTACHMENT 2: EMERGENCY RESPONSE GUIDELINES, UMMS JP**

Note: This document is posted in hard copy throughout the building and is available on the building intranet.

ATTACHMENT 3: REACHING AND MOVING AN ILL OR INJURED PERSON  
First Aid/CPR/AED for the Workplace, Participant's Workbook, ©2006 American Red Cross

## REACHING AND MOVING AN ILL OR INJURED PERSON

### "Do No Further Harm"

One of the most dangerous threats to a seriously injured person is unnecessary movement. Usually when giving care, you will not face dangers that require you to move a person. In most cases, you can follow the emergency steps (**CHECK—CALL—CARE**) where you find the person. Calling for help is the most important step you can take in an emergency to help the person in need of care.

Moving a seriously injured person can cause additional injury and pain and complicate the person's recovery. Therefore, you should move a person **only** under the following three situations:

1. When you are faced with immediate danger
2. When you have to get to another person who may have a more serious injury or illness
3. When you need to provide proper care

Once you decide that you must move a person based on the guidance above, you must quickly decide **how** to move the person. Carefully consider your safety and the safety of the person. Base your decision on the dangers you are facing, the size and condition of the person, your ability and condition and whether you have any help.

To avoid injuring yourself or the person, use your legs, not your back, when you bend. Bend at the knees and hips and avoid twisting your body. Walk forward when possible, taking small steps and looking where you are going.

Avoid twisting or bending anyone with a possible head, neck or back injury. Do not move a person who is too large to move comfortably.

### Emergency Moves

#### WALKING ASSIST

To help a person who needs assistance walking to safety—

- Place the person's arm across your shoulders and hold it in place with one hand (Fig. 1-5A).
- Support the person with your other hand around the person's waist.
- Move the person to safety.
- A second responder, if present, can support the person in the same way on the other side (Fig. 1-5B).



#### PACK-STRAP CARRY

To move either a conscious or unconscious person—

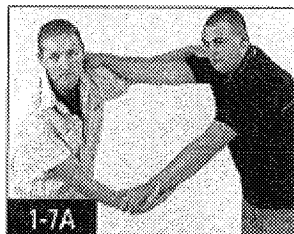
- Position yourself with your back to the person.
- Cross the person's arms in front of you and grasp the person's wrists.
- Lean forward slightly and pull the person onto your back (Fig. 1-6).



#### TWO-PERSON SEAT CARRY

To carry a person who cannot walk and has no suspected head, neck or back injury—

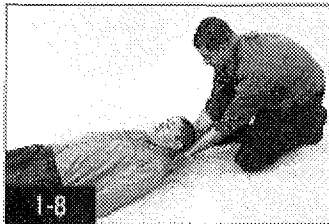
- Put one arm under the person's thighs and the other across the person's back.
- Interlock your arms with those of a second responder under the person's legs and across the person's back (Fig. 1-7A).
- Lift the person in the "seat" formed by the responders' arms (Fig. 1-7B).
- Move the person to safety.



### **CLOTHES DRAG**

To move a person who may have a head, neck or back injury—

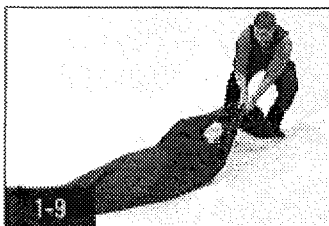
- Gather the clothing behind the person's neck (Fig. 1-8).
- Pull the person to safety.
- While moving the person, cradle the head with the person's clothes and your hands.



### **BLANKET DRAG**

To move a person in an emergency situation when equipment is limited—

- Keep the person between you and the blanket.
- Gather half the blanket and place it against the person's side.
- Roll the person as a unit toward you.
- Reach over and place the blanket so that it will be positioned under the person.
- Roll the person onto the blanket.
- Gather the blanket at the head and move the person (Fig. 1-9).



### **FOOT DRAG**

To move a person too large to carry or move otherwise—

- Firmly grasp the person's ankles and move backward.
- Pull the person in a straight line and be careful not to bump the person's head (Fig. 1-10).



### **Confined Spaces**

A confined space is a space that is large enough and configured so that an employee can enter and perform assigned work. It has limited or restricted means of entry or exit (e.g., tanks, vessels, silos, storage bins, hoppers, vaults and pits are spaces that may have limited means of entry). They are not designed for continuous employee occupancy.